

**COSMETIC HAIR CLEANSING AGENTS WITH ACTIVE INGREDIENT  
COMBINATIONS OF GAMMA ORYZANOL AND CALCIUM SALTS WITH LOW  
METALLIC IONS CONCENTRATION**

[Haarkosmetische Reinigungsmittel mit Wirkstoffkombinationen aus  
Gamma-Oryzanol und Calciumsalzen mit niedriger  
Metallionenkonzentration]

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**Cosmetic Hair Cleansing Agents with Active Ingredient  
Combinations of Gamma Oryzanol and Calcium Salts with Low  
Metallic Ions Concentration**

The object of the invention are cosmetic hair cleansing agents containing gamma oryzanol and a calcium salt or several calcium salts, selected from the group formed by calcium pantothenate, calcium chloride, and calcium lactate, wherein the concentration of polyvalent metal cations available in free ion form is less than 0.004 M.

**Description**

[0001] The invention concerns cosmetic active ingredient combinations and preparations containing these active ingredient combinations. The invention concerns in particular cosmetic hair cleansing preparations or cosmetic hair cleansing agents having a content of substances that protect the scalp and/or the hair, but also the preparations themselves from undesirable oxidation processes. In a preferred embodiment, the invention concerns active ingredient combinations and preparations that serve to care for the hair and the scalp.

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<sup>1</sup> Numbers in the margin indicate pagination in the foreign text.

[0002] Oxidative processes damage substances of different nature (for example, skin, hair, and wool, but also paints and plastics, only to name a few) at times to a considerable extent. The substances change thereby their physical and chemical properties: the "age." In order to delay or even inhibit the aging of substances are generally utilized so-called aging inhibitors.

[0003] In particular the damaging effect of the ultraviolet portion of sunlight on organic, but also inorganic substances is generally known. For humans, the damage on the skin and hair and the delay or prevention thereof by using screening agents is of particular importance.

[0004] The entire human body with the exception of the lips, the palm of the hands, and the soles of the feet is covered by hair, but for the most part by hardly visible fuzz. Because of the many nerve ends at the hair roots, hair reacts sensitively to external influences such as wind or touch and is therefore a component of sense of touch that should not be underestimated. The most important function of human head hair would consist today of characterizing the appearance of a human being. Similarly as the skin, it fulfills a social function, since it contributes via its appearance to the relationships between humans and to the self-esteem of the individual.

[0005] The hair consists of a hair shaft projecting from the skin – the keratinized (dead) part, which represents the actually visible part of the hair – and the hair root that is inserted in the scalp – the living part, in which the visible hair is constantly being formed anew. The hair shaft, in turn, is formed by three layers: a central part – the so-called medulla, which is degenerated in humans, however, and which is frequently missing – and further the cortex, and the outer cuticula, which can be up to ten layer thick, which encases the entire hair.

[0006] The human hair is, insofar there are no changes caused by disease, can practically not be improved in its freshly grown condition. The part of a hair that is close to the scalp has accordingly an almost closed cuticula layer. In particular the cuticula layer as external casing of the hair, but also the internal area below the cuticula are particularly exposed to the effects of environmental influences.

[0007] Essential influences on the quality loss of hair during its aging are the influence of sunlight, mechanical stress due to intensive combining or brushing, but also hair treatments, such as dyes, and in particular bleaching as well as hair curling, for example, perming processes. Particularly oxidative stress leads thereafter frequently to damage of the hair.

[0008] UV-A as well as UV-B radiation have a damaging influence on the hair, which becomes apparent in that specific amino acids such as cysteine and methionine are degraded or the sulfur-sulfur bonds of keratin are split, which in the worst case can have as a consequence the destruction of the hair. The hair and scalp represent parts of the body that are exposed to a considerable amount of UV radiation due to their position when staying out-of-doors.

[0009] Under particularly aggressive stress, for example, bleaching with oxidants such as hydrogen peroxide, in which the pigments distributed in the cortex are oxidatively destroyed, can also suffer the internal part of the hair. Merely oxidative hair dying processes are taken into consideration for permanently dyeing human hair. In the oxidative hair dyes, the formation of dye chromophores by reaction of precursors (phenols, aminophenols, more rarely also diamines) and bases (at least p-phenylene diamine) with the oxidant, at least hydrogen peroxide. Hydrogen peroxide concentrations of about 6% are usually utilized.

[0010] It is usually assumed that, aside from the dyeing effect also a bleaching effect, occurs by means of the hydrogen peroxide. In oxidative dyed human hair can be detected, similarly as in bleached hair, microscopic holes that have

occurred at locations at which melamine granules were present. It is a fact that the oxidation agent hydrogen peroxide reacts not only with the dye precursors, but also with the hair substance, and thereby under certain conditions can cause a damage of the hair.

[0011] Oxidative influences, such as, for example, chemical hair treatments or sunlight, diminish accordingly the strength and the elasticity of the hair and lead to the destruction of melamine. This is apparent in particular in dark haired persons, whose hair is clearly lightened due to the intensive

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sunlight during the summer. Under the term "oxidative influence" is understood in the sense of the invention the influence of oxidizing acting substances, as well as also the oxidative effect of the secondary products caused by radiation, namely light, in particular UV light.

[0012] An object of hair care is to protect the scalp and hair from oxidative influences, and to maintain the natural condition of the freshly grown hair for as long as possible, and to restore the same in the case of a loss thereof. A silky sheen, low porosity, and a pleasant smooth feel are considered features of natural healthy hair.

[0013] Since the end of the previous century have been developed products purposefully for hair care. This has lead to a multitude of preparations for general hair care as well as also for eliminating anomalies of the hair and scalp. Hair care cosmetics are currently used, which are either destined for this purpose and are rinsed off the hair after exerting their influence, or which remain on the hair. The latter can be formulated in such a way that they are not only formulated for the care of hair, but also improve the overall appearance of a hairdo, for example, by providing the hair with more fullness, by fixing the hairdo over a longer period of time, or by improving the hairdressing quality.

[0014] The utilization of antioxidants, that is, substances that prevent oxidation processes, in cosmetics is known per se. Antioxidants that are utilized in cosmetics are, for example, tocopherols, bile acid derivatives, sesamol, and flavonoids. Antioxidants are utilized mainly as protective substances against the deterioration of the preparations that contain them.

[0015] Also tocopherols, in particular vitamin E, are naturally suitable in principle to prevent oxidation processes, and are accordingly utilized frequently in cosmetics. However, tocopherols have the disadvantage that they are very reactive in general and therefore abreact partially already in the



preparation. This leads to the fact that only a small part of the used quantity even reaches the part of the body to be protected, so that the achieved effect is far behind the one that was expected.

[0016] From EP-A-0706366 are known shampoo compositions that have a concentration of 0.004 M to 0.08 M of polyvalent metal cations in free ion form. With "M" is indicated also in the following the molarity.

[0017] The cosmetic preparations of this kind have the disadvantage, however, that they can change disadvantageously in their appearance and/or smell under the influence of light and/or heat or after long periods of storage, because their concentration of free polyvalent metal cations is too high.

[0018] It was an object of the invention to eliminate the disadvantages of the state of the art. In particular cosmetic active ingredients or preparations containing such active ingredients should be made available, whose use can reduce, if not completely eliminate, the damages caused by the oxidative influence on the scalp and/or the hair when used. These cosmetic active ingredients or preparations should remain stable over a long period of time in their effectiveness and their cosmetic impression.

[0019] This object is attained pursuant to the invention and the disadvantages of the state of the art are eliminated.

[0020] An object of the invention are cosmetic hair cleansing agents containing gamma oryzanol and a calcium salt or several calcium salts selected from the group formed by calcium pantothenate, calcium chloride, or calcium lactate, wherein the concentration of polyvalent metal cations available in free ion form amounts to less than 0.004 M.

[0021] An object of the invention are in particular cosmetic hair cleansing agents containing gamma oryzanol and a calcium salt or several calcium salts selected from the group formed by calcium pantothenate, calcium chloride, and calcium lactate, and at least one complexing agent.

[0022] An object of the invention are also cosmetic hair active ingredient combinations containing  $\gamma$ -oryzanol and a calcium salt or several calcium salts selected from the group formed by calcium pantothenate, calcium chloride, and calcium lactate, and at least one complexing agent.

[0023] An object of the invention is furthermore the utilization of active ingredient combinations and cosmetic hair cleansing agents containing the same and consisting of gamma oryzanol and a calcium salt or several calcium salts selected from the group formed by calcium pantothenate, calcium chloride,

and calcium lactate, wherein the concentration of polyvalent metal cations in free ion form amounts to less than 0.004 M, for the protection of cosmetic hair preparations and/or the scalp and/or the hair from undesirable oxidation processes.

[0024] An object of the invention is furthermore the utilization of active ingredient combinations and cosmetic hair cleansing agents containing these consisting of gamma oryzanol and a calcium salt or several calcium salts selected from the group formed by calcium pantothenate, calcium chloride, and calcium lactate, and at least one complexing agent for the protection of cosmetic hair preparations and/or the scalp and/or the hair from undesirable oxidation processes.

[0025] Preferred cosmetic hair preparations are shampoos, which can contain, for example, also conditioning auxiliary agents, in particular also aqueous conditioning auxiliary agents, such as, for example, those described below.

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[0026] The active ingredient combinations pursuant to the invention and preparations containing these reduce the damage on the scalp and/or the hair due to oxidative influences better than the active ingredients, active ingredient combinations, and preparations of the state of the art. They care in particular for hair that has been damaged or stressed due to oxidative

stress or they prevent these damages. Especially the complexing agents mask the polyvalent metal cations that may be present in concentrations of more than 0.004 M in the form of free ions, for example, calcium ions or magnesium ions, which would lead to undesirable changes in appearance and smell of the active ingredient combinations and the preparations containing these. In the masked or complexed form, the mentioned metallic ions surprisingly do not lead to the described disadvantages.

[0027] Gamma oryzanol has been described in the literature (CAS No.: 11042-64-1 or 12738-23-7). Gamma oryzanol is not a single compounds, but a mixture of differently structured ferula acid esters. Gamma oryzanol consists mainly of the esters of ferula acid with the triterpene alcohols cycloartenol and 24-methylene cycloartenol. It also contains small quantities of esters with sterols, namely with campesterol, stigmasterol, and  $\beta$ -sitosterol.

[0028] Gamma oryzanol can be obtained in the market under the trade name Gamma-Oryzanol (supplier: Jan Dekker or Henry Lamotte, Germany).

[0029] The preparations pursuant to the invention contain preferably 0.001 to 5.0 percent by weight of gamma oryzanol, preferably 0.01 to 2.0 percent by weight with respect to the total weight of the preparations.

[0030] The preparations pursuant to the invention contain preferably 0.001 to 0.05 percent by weight of one or several calcium salts, preferably 0.02 to 0.05 percent by weight with respect to the total weight of the preparations.

[0031] As calcium salt is preferred calcium lactate. The calcium salts can be obtained in the market.

[0032] All complexing agents that complex polyvalent metal cations and reduce the concentration of free polyvalent metal cations or polyvalent metal cations in free ion form, in particular calcium ions and/or magnesium ions, in the preparations pursuant to the invention, in particular under the concentration of 0.004 M, are suitable.

[0033] As complexing agents are preferred ethylene (oxyethylene nitrilo)-tetraacetic acid (EGTA), ethylene diamine tetraacetic acid, or imino disuccinic acid, or their salts, in particular water-soluble salts, for example, sodium salts or potassium salts, wherein one or several carbonic acid groups can be available in salt form.

[0034] Complexing agents can also be advantageously selected from the group of the usual compounds, for example, in that at least one substance from the group consisting of tartaric acid and its anions, citric acid and its anions, aminopolycarbonic acid and its anions (such as, for example, nitrilo triacetic

acid (NTA) and its anions), hydroxy ethylene diamino triacetic acid (HOEDTA) and its anions, diethylene amino pentaacetic acid (DPTA) and its anions, and trans-1,2-diamino cyclohexane tetraacetic acid (CDTA) and its anions is selected.

[0035] It can be assumed (even though this assumption could not be confirmed in all details) that a portion of the polyvalent metal cations that is theoretical available in the preparations, for example, calcium or magnesium ions, is available in the form of the complex with gamma oryzanol pursuant to the invention, and a further portion of these metal cations is masked pursuant to the invention in particular by the complexing agents, and the concentration of polyvalent metal cations, which are available in free form, lies below 0.004 M.

[0036] The water utilized for the production of the preparations is preferably demineralized or full desalinated (VES) or has only a low water hardness or low concentration of calcium ions or magnesium ions, in case tap water is used. In these cases, it is practical to analyze the concentration of free polyvalent metal cations with regard to the low concentration pursuant to the invention of 0.004 M, for example, by carrying out measurements with a cation-sensitive electrode.

[0037] Corrections can always be carried out in a known manner by the person skilled in the art in case these are practical or

required, for example, by means of an adapted higher dose of the complexing agent controlled, for example, by means of such a measurement, or however a lower dose, in case the utilization of a complexing agent should be required, since a lower dose pursuant to the invention of polyvalent free metal cations, in particular calcium ions, below the upper limit of a concentration of 0.004 M can be undertaken and if required metrologically adjusted and controlled.

[0038] The preparations pursuant to the invention contain advantageously 0.05 - 1.0 percent by weight, if required, with reference to the total weight of the preparations.

[0039] The complexing agents are likewise known and obtainable in the market.

[0040] The concentration of polyvalent metallic cations, in particular calcium ions, which are in free form amounts in the preparations pursuant to the invention, for example, to 0.000001 M - 0.0039 M, preferably 0.00001 M - 0.0039 M, in particular 0.0001 M - 0.0038 M.

[0041] The cosmetic hair cleansing agents and preparations, which contain the active ingredient combinations pursuant to the invention, are topical preparations. These can be composed as usual and serve for the care of the scalp and/or the hair or as

light protection preparations. For the application, a sufficient quantity of the preparations pursuant to the

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invention is applied on the scalp and the hair in the usual manner for cosmetics and hair cleansing agents.

[0042] The preparations in the sense of the invention can be advantageously available as emulsions or solutions.

[0043] The agents pursuant to the invention can be available, for example, as preparations that can be dosed from squeezable bottles or also by means of pumping or spraying arrangements, but also in particular in the form of an agent that can be applied from normal bottles and containers.

[0044] The preparations pursuant to the invention contain advantageously, aside from an effective content of active ingredient combinations pursuant to the invention, likewise the usual active substances, substances of content, additives, and/or auxiliary substances.

[0045] The preparations pursuant to the invention, which represent the cosmetic hair cleansing preparations for the hair or the scalp, can be available in liquid or solid form. They contain preferably at least one anionic, non-ionic, or amphoteric surface-active substance or mixtures thereof, if required an electrolyte and auxiliary substance, which are



customarily used therefor. The surface-active substance can be available in a concentration of between 1 and 94 percent by weight in the cleansing preparations with reference to the total weight of the preparations, in particular, however, between 1 and 50 percent by weight.

[0046] Aqueous cosmetic cleansing agents pursuant to the invention or xeric or anhydrous cleansing agent concentrates can contain in particular anionic, non-ionic, and/or amphoteric tensides, for example, conventional soaps, for example, fatty acid salts of sodium, alkyl sulfates, alkyl ether sulfates, alkane and alkyl benzol sulfates, sulfoacetates, sulfobetaines, sarcosinates, amido sulfobetaines, sulfosuccinates, sulfosuccinic acid half esters, alkyl ether carboxylates, protein fatty acid condensates, alkyl betaines, and amido betaines, fatty acid alkanol amides, and polyglycol ether derivatives.

[0047] The anionic tensides are preferably used in concentrations of between 5 percent by weight and 20 percent by weight. Considered are, for example, sodium laureth sulfate as offered under the name Texapon N 70 by the Henkel Company, or disodium laureth sulfosuccinate as offered under the name Rewopol SBFA 30 by the Witco Company. Non-ionic tensides are preferably used in concentrations of 1 percent by weight to 10

percent by weight. Examples are decyl glycosides as offered under the name Oramix NS 10 by the Seppic Company, or polysorbates 80 as offered under the name Tween 80 by the ICI Company.

[0048] The amphoteric tensides are preferably available in concentrations of 1 percent by weight to 10 percent by weight. Examples are cocoamidopropyl betaines such as Tego Betain offered by the Goldschmidt Company, or sodium cocoamphoacetates as offered under the name Miranol Ultra by the Rhone Poulenc Company.

[0049] The disclosed percentages refer to the total weight of the preparations.

[0050] Conditioning agents can also be contained in the cosmetic hair cleansing agents, in particular water-soluble conditioning agents, for example, cationic conditioning agents, for example, in quantities of 0.001 to 10 percent by weight with reference to the total weight of the preparations. To the preferred conditioning agents belong polymeric quaternary compounds (quats). The polymeric quats are frequently used in shampoos, for example, with a concentration of 0.01 to 2 percent by weight. To these belong polyquaternium-10 as offered under the name Polymer JR 400 by the Amerchol Company or hydroxyl

propyl guar hydroxy propyl trimonium chlorides as offered under the name Jaguar C 162 by the Rhone Poulenc Company.

[0051] The preparations pursuant to the invention can contain the cosmetic auxiliary substances that are customarily utilized in these preparations, for example, preservatives, perfumes, substances for preventing foaming, foam stabilizers, dyes, pigments having a dyeing effect, thickening agents, surface-active substances, emulsifiers, softening, wetting, and/or moisture-retaining substances, refattening agents, fats, oils, waxes, alcohols, polyols, and their toxicologically tolerated ethers and esters, branched and/or unbranched hydrocarbons, further antioxidants, stabilizers, pH value regulators, consistency givers, bactericides, deodorants, antimicrobial substances, static inhibitors, UV absorbers, pearlizing agents, polymers, electrolytes, organic solvents, silicone derivatives, plant extracts, vitamins and/or other active ingredients or other customary components of a cosmetic or dermatological formulation. Also solubilizers, for example, for incorporating hydrophobic components such as, for example, perfume preparations, can be contained.

[0052] The total quantity of auxiliary substances amounts, for example, to between 0.001 and 15 percent by weight, preferably

to between 0.01 and 10 percent by weight, respectively with reference to the total weight of the preparation.

[0053] The water content of the preparations amounts, for example, to between 20 - 99 percent by weight, preferably to between 50 and 95 percent by weight, in particular between 55 and 90 percent by weight, with reference to the total weight of the preparation.

[0054] As further antioxidants can be utilized pursuant to the invention all the antioxidants that are suitable and customary for cosmetic and/or dermatological applications.

[0055] The total quantity of antioxidants amounts, for example, to between 0.001 and 2 percent by weight, preferably to between 0.01 and 1 percent by weight, respectively with reference to the total weight of the preparation.

[0056] Other antioxidants selected from the group consisting of amino acids (for example, glycine, histidine, tyrosine, tryptophan) and their derivatives, imidazoles (for example, urocanic acid) and its derivatives, peptides such as D,L-

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camosine, D-camosine, L-camosine and their derivatives (for example, anserine), carotinoids, carotenes (for example, alpha carotene, beta carotene, lycopene) and their derivatives, lipoic acid and its derivatives (for example, dihydrolipoic acid),

aurothioglucose, propyl thiouracil, and other thiols (for example, thioredoxin, glutathione, cysteine, cysteine, cystamine and their glycosyl, n-acetyl, methyl, ethyl, propyl, amyl, butyl, and lauryl, palmitoyl, oleyl, gamma linoleyl, cholesteryl and glyceryl ester) as well as their salts, dilauryl thiodipropionate, distearyl thiodipropionate, thiodipropionic acid and their derivatives (esters, ethers, peptides, lipids, nucleotides, nucleosides, and salts) as well as sulfoximine compounds (for example, buthionine sulfoximine, homocysteine sulfoximine, buthionine sulfone, pentathionine, hexathionine, heptathionine sulfoximine) in very low tolerated doses (for example, pmol to  $\mu\text{mol/kg}$ ), furthermore (metallic) chelators (for example, alpha hydroxy fatty acids, palmitic acid, phytinic acid, lactoferrin), alpha hydroxy acids (for example, citric acid, lactic acid, malic acid), humic acid, bile acid, bile extracts, bilirubin, biliverdin, unsaturated fatty acids, and their derivatives (for example, gamma linoleic acid, linolic acid, linoleic acid, oleic acid), folic acid and its derivatives, vitamin C and derivatives (for example, ascorbyl palmitate, Mg-ascorbyl phosphate, ascorbyl acetate), tocopherols and derivatives (for example, vitamin E acetate), vitamin A and derivatives (vitamin A palmitate), as well as coniferyl benzoate of benzoic resin, capric acid and its derivatives, alpha

glycosyl rutin, ferulic acid, furfurylidene glucitol, carnosine, butyl hydroxy toluol, butyl hydroxy anisol, nor dihydro guaiac resin acid nor dihydro guaiaretic acid, trihydroxy butyrophenone, uric acid and its derivatives, mannose and its derivatives, zinc and its derivatives (for example,  $\text{ZnO}$ ,  $\text{ZnSO}_4$ ), selenium and its derivatives (for example, selenium methionine), stilbenes and their derivatives (for example, stilbene oxide, trans-stilbene oxide) and the derivatives suitable pursuant to the invention (salts, esters, ethers, sugar, nucleotides, nucleosides, peptides, and lipids) of these mentioned substances can be advantageously used.

[0057] The preparation pursuant to the invention can advantageously also contain substances that absorb UV radiation within the UV-B range, wherein the total quantity of filtering substances amounts to, for example, between 0.001 percent by weight and 30 percent by weight, preferably between 0.05 and 10 percent by weight, particularly between 0.1 and 1.0 percent by weight, with reference to the total weight of the preparations, in order to make available cosmetic preparations that protect the hair or the skin from the entire range of ultraviolet radiation. They can also serve as sunlight protection agents for the hair or the skin, in particular the scalp.

[0058] If the emulsions pursuant to the invention contain UV-B filtering substances, these can be advantageously soluble in water. Advantageous water-soluble UV-B filters are, for example:

- Salts of 2-phenyl benzimidazol-5-sulfonic acid such as its sodium, potassium, or its triethanol ammonium salt, as well as 2-phenyl benzimidazol-5-sulfonic acid itself;
- Sulfonic acid derivatives of benzophenones, preferably 2-hydroxy-4-methoxy benzophenone-5-sulfonic acid and its salts;
- Sulfonic acid derivatives of 3-benzylidene camphor, such as, for example, 4-(2-oxo-3-bornylidene methyl)-benzol sulfonic acid, 2-methyl-5-(2-oxo-3-bornylidene methyl)-sulfonic acid and their salts.

[0059] It can also be advantageous to mix the preparations pursuant to the invention with UV-A filters, which are currently customarily contained in cosmetic preparations. The quantities utilized for the UV-B combination can be used.

[0060] The weight ratio of the active ingredients oryzanol/calcium salts with respect to each other in the combinations can be varied within a broad range and can amount to, for example, 100:1 to 1:100, preferably 10:1 to 1:10, but also 1:1.

[0061] The weight ratio of the active ingredients calcium salts/complexing agents with respect to each other in the combinations can be varied within a broad range and can amount to, for example, 100:1 to 1:100, preferably 10:1 to 1:10, but also 1:1.

[0062] The production of the preparations pursuant to the invention can be occur in the usual way by mixing the individual components. The active ingredients of the combinations pursuant to the invention or also the premixed components of the combinations pursuant to the invention can be added during the mixing process.

[0063] The pH value of the preparations can be adjusted in a known manner by adding acids or bases, preferably by adding buffer mixtures, for example, based on citric acid/citrate or phosphoric acid phosphate buffer mixtures. The pH value lies preferably under 10, for example, within the range of 4-8, in particular within the range of 5-7.

[0064] All the quantities, portions, and percentages, insofar as not otherwise indicated, refer to the weight and the total quantity or total weight of the preparations or the respective mixture.

[0065] The following examples clarify the invention.



[0066] As gamma oryzanol is utilized in the examples the commercial product Gamma-Oryzanol of the Jan Dekker Company, Germany.

[0067] As imino disuccinic acid-Na-salt was utilized tetrasodium salt.

[0068] The quantities in the examples are in percent by weight.

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### Examples 1-3

#### Conditioning Shampoo with Pearlescence

[0069]

	1	2	3
Polyquaternium-10	0.5	0.5	0.5
Sodium laureth sulfate	9.0	9.0	9.0
Cocoamido propyl betaine	2.5	2.5	2.5
Pearlizing agent	2.0	2.0	2.0
Gamma-Oryzanol	0.01	0.15	0.05
Calcium lactate	0.015	0.05	0.01
Disodium EDTA	0.1	0.2	0.15
Preservatives, perfume, thickening agents, pH adjustment, and solubilizers	q.s.	q.s.	q.s.
Water, VES (fully desalinated)	ad 100.0	ad 100.0	ad 100.0
The pH value is adjusted to 6.			

**Examples 4-6**

## Bright Conditioning Shampoo

[0070]

	4	5	6
Polyquaternium-10	0.5	0.5	0.5
Sodium laureth sulfate	9.0	9.0	9.0
Cocoamido propyl betaine	2.5	2.5	2.5
Gamma-Oryzanol	0.25	0.2	0.15
Calcium chloride	0.015	0.03	0.05
Imido disuccinic acid, Na salt	0.2	0.3	0.8
Preservatives, perfume, thickening agents, pH adjustment, and solubilizers	q.s.	q.s.	q.s.
Water, VES	ad 100.0	ad 100.0	ad 100.0
The pH value is adjusted to 6.			

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## Bright Light Shampoo with Volume Effect

[0071]

	7	8	9
Sodium laureth sulfate	10.0	10.0	10.0

Cocoamido propyl betaine	2.5	2.5	2.5
Gamma-Oryzanol	0.01	0.02	0.05
Calcium chloride	0.01	0.008	0.05
Disodium EDTA	0.2	0.15	0.7
Preservatives, perfume, thickening agents, pH adjustment, and solubilizers	q.s.	q.s.	q.s.
Water, VES (fully desalinated)	ad 100.0	ad 100.0	ad 100.0
The pH value is adjusted to 5.5.			

#### Examples 10-12

#### Bright Conditioning Shampoo

[0072]

	10	11	12
Polyquaternium-10	0.5	0.5	0.5
Sodium laureth sulfate	9.0	9.0	9.0
Cocoamido propyl betaine	2.5	2.5	2.5
Gamma-Oryzanol	0.25	0.2	0.15
Calcium chloride	0.0015	0.003	0.005
Preservatives, perfume, thickening agents, pH adjustment, and solubilizers	q.s.	q.s.	q.s.
Water, VES	ad 100.0	ad 100.0	ad 100.0

The pH value is adjusted to 6.

#### Patent Claims

1. Cosmetic hair cleansing agents containing gamma oryzanol and a calcium salt or several calcium salts selected from the group formed by calcium pantothenate, calcium chloride, and calcium lactate, wherein the concentration of polyvalent metal cations amounts to less than 0.004 M.
  2. Cosmetic hair cleansing agents containing gamma oryzanol and a calcium salt or several calcium salts selected from the group formed by calcium pantothenate, calcium chloride, and calcium lactate, and at least one complexing agent.
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3. A use of active ingredient combinations and cosmetic hair cleansing agents containing the same consisting of gamma oryzanol and a calcium salt or several calcium salts selected from the group formed by calcium pantothenate, calcium chloride, and calcium lactate, wherein the concentration of polyvalent metal cations available in free ion form amounts to less than 0.004 M, for the protection of cosmetic hair preparations and/or the scalp and/or the hair from undesirable oxidation processes.

4. A use of active ingredient combinations and cosmetic hair cleansing agents containing the same consisting of gamma oryzanol and a calcium salt or several calcium salts selected from the group formed by calcium pantothenate, calcium chloride, and calcium lactate, and at least one complexing agents for the protection of cosmetic hair preparations and/or the scalp and/or the hair from undesirable oxidation processes.
5. The agents or the use of claim 2 or 4, wherein the complexing agents are ethylene diamine tetraacetic acid and/or imino disuccinic acid.
6. The agents of claim 2, containing 0.02 to 2.00 percent by weight of one or several complexing agents, preferably 0.05 to 1.0 percent by weight, respectively with reference to the total weight of the agents.
7. The agents of claim 1 or 2, containing 0.001 to 5.0 percent by weight of gamma oryzanol, preferably 0.01 to 2.0 percent by weight, respectively with reference to the total weight of the agents.
8. The agents of claim 1 or 2, containing additional further tensides and/or cosmetic or dermatological auxiliary, additive and/or active ingredients.

9. The agents of claim 1 or 2, containing 0.001 to 0.05 percent of one or several calcium salts, preferably 0.02 to 0.05 percent by weight, respective with reference to the total weight of the agents.